

AMENDMENTS TO THE CLAIMS:

1. (Currently amended) A discharge control unit comprising:

a heating portion including one or a plurality of heat-generating bodies and driver ICs electrically connected to one or a plurality of heat-generating bodies and caused to generate heat by flowing an electric current to an optional point of one heat-generating body or selectively flowing the same to said plurality of heat-generating bodies; and

a heat generation portion insulating film covered on at least the heat-generating bodies; and discharge electrodes, to which voltage is applied, disposed at the heat generation portion insulating film so as to correspond to the one or a plurality of heat-generating bodies;

wherein the discharge electrodes are formed to be like a rectangular or square flat plate including a common electrode portion and discharge portions. and discharge is carried out from discharge portions of the discharge electrodes selectively heated by the heat-generating bodies.

2. (Currently amended) A discharge control unit ~~according to Claim 1, comprising:~~

a heating portion including one or a plurality of heat-generating bodies and driver ICs electrically connected to one or a plurality of heat-generating bodies and caused to generate heat by flowing an electric current to an optional point of one heat-generating body or selectively flowing the same to a plurality of heat-generating bodies; and

a heat generation portion insulating film covered on at least the heat-generating bodies;
and

discharge electrodes, to which voltage is applied, disposed at the heat generation portion insulating film so as to correspond to one or a plurality of heat-generating bodies;

wherein the discharge electrodes include a plurality of individual discharge electrode portions and a common electrode portion formed to be wider than the width of the individual discharge electrode portions, which connects one-sided ends of the plurality of individual discharge electrode portions, and discharge is carried out from discharge portions of the discharge electrodes selectively heated by the heat-generating bodies.

~~wherein the discharge control unit includes an induction electrode formed so that the induction electrode is spaced from the discharge electrode and is insulated from the discharge electrode.~~

3. (Currently Amended) A discharge control unit according to Claim ~~1~~ or 2, wherein the individual discharge electrode portions of the discharge electrode are provided with split electrodes divided into a plurality~~includes a plurality of individual discharge electrode portions and a common electrode portion to which one end portions of the plurality of individual discharge electrode portions are connected.~~

4. (Currently Amended) A discharge control unit according to Claim 2 ~~3~~, wherein the plurality of individual discharge electrode portions are disposed in chessboard patterns of the
~~discharge electrode are provided with split electrodes divided into a plurality.~~

5. (Currently Amended) A discharge control unit according to Claim ~~1~~ 3 or 4, wherein the plurality of heat-generating bodies are disposed in chessboard patterns~~width of the common~~

electrode portion is formed to be wider than the width of the individual discharge electrode portion.

6. (Currently Amended) A discharge control unit according to ~~any one of Claims 1 through 5~~ Claim 2, wherein the discharge electrode includes an auxiliary common electrode portion for connecting the other end portions of the plurality of individual discharge electrode portions or the plurality of heat-generating bodies are disposed in chessboard patterns.

7. (Currently Amended) A discharge control unit according to ~~any one of Claims 3 through 6~~ Claim 1, wherein the discharge electrode includes the an auxiliary common electrode portion and the discharge portion and includes a conductive material layer formed on the surface of at least the common electrode portion of the discharge electrode for connecting the other end portions of the plurality of individual discharge electrode portions.

8. (Currently Amended) A discharge control unit according to ~~any one of Claims 1 through 7~~ Claim 1, including ~~wherein the discharge electrode includes the common electrode portion and the discharge portion and includes a conductive material layer formed on the surface of at least the~~ auxiliary common electrode portion of the discharge electrodes electrode.

9. (Currently Amended) A discharge control unit according to ~~any one of Claims 1 through 8~~ Claim 1, including ~~wherein the discharge control unit includes an electrode protection thin film layer formed on the surface of the discharge~~ electrodes electrode.

10. (Currently Amended) A discharge control unit according to ~~any one of Claims 1 through 9~~ Claim 1, including wherein the discharge control unit includes a coating film covered on the discharge electrode other than the discharge portion.

11. (Original) A discharge control unit according to Claim 10, wherein the discharge control unit includes recesses and projections formed on the surface of the coating film.

12. (Currently Amended) A discharge control unit according to Claim 1, including an induction electrode formed to be spaced from the discharge electrodes and to be insulated therefrom~~A method for controlling discharge of a discharge control unit according to any one of Claims 1 through 11, comprising a step of carrying out multi-divided discharge control by dividing heating of the discharge electrode by means of the heat-generating portion into a plurality of times and repeating the same.~~

13. (Currently Amended) A method for controlling discharge of a discharge control unit according to ~~any one of Claims 1 through 11~~ Claim 1, which carries out multi-divided discharge control by dividing heating of the discharge electrode by the heating portion into a plurality of times and repeating the same~~wherein the method is comprised to be provided with a step of preheating at least the discharge electrode.~~

14. (Currently Amended) A method for controlling discharge of producing a discharge control unit according to any one of Claims 1 through 11 Claim 1, including wherein the a step

of preheating at least the discharge electrodes~~forming a discharge electrode corresponding to the~~
~~heat-generating body in the heat generation portion insulating film includes a step of forming a~~
~~conductive material layer on the surface of at least any one of the common electrode portion of~~
~~the discharge electrode and the auxiliary common electrode portion thereof.~~

15. (Currently Amended) A method for producing a~~the~~ discharge control unit according to
Claim 7~~any one of Claims 1 through 11~~, wherein the step of forming a discharge electrodes
electrode on a heat generation portion insulating film corresponding to a heat-generating body
includes a step of forming a conductive material layer on the surface of at least the common
electrode portion of the~~an electrode protection thin film layer on the surface of the discharge~~
electrodes~~electrode~~.

16. (Currently Amended) A method for producing a~~the~~ discharge control unit according to
Claim 8~~any one of Claims 1 through 11~~, wherein the step of forming a discharge electrodes on a
heat generation portion insulating film corresponding to a heat-generating body includes a step
of forming a conductive material layer on the surface of at least the auxiliary common electrode
portion of the discharge electrodes~~secoating film covered on the discharge electrode other than the~~
~~discharge portion~~.

17. (Currently Amended) A method for producing a~~the~~ discharge control unit according to
Claim 9~~any one of Claims 2 through 11~~, wherein the ~~method comprises:~~ a step of forming an
discharge electrodes includes a step of forming an electrode protection thin film layer on the

~~surface of the discharge electrodes~~~~induction electrode on the upper surface of the heat generation~~
~~portion insulating film, being spaced from the end portion of the heat generating body side of the~~
~~discharge electrode in the horizontal direction, and a step of forming an induction electrode~~
~~insulating film, which covers the induction electrode, on the upper surface of the heat generation~~
~~portion insulating film.~~

18. (New) A method for producing a discharge control unit according to Claim 10, wherein the step of forming discharge electrodes includes a step of forming a coating film covered on the discharge electrodes other than the discharge portions.

19. (New) A method for producing a discharge control unit according to Claim 12, comprising a step of forming the induction electrode on the upper surface of the heat generation portion insulating film, being spaced from the end portion at the heat-generating body side of the discharge electrode in the horizontal direction, and a step of forming an induction electrode insulating film, which covers the induction electrode, on the upper surface of the heat generation portion insulating film.